

In accordance with 37 C.F.R. § 1.121, Applicants have provided (1) accurate instructions to amend the claims, (2) replacement claims in clean form herein, and (3) another version of the amended claims marked up to show all the changes relative to the previous version, which appears on an attached page.

I. Election/Restriction

In the Communication dated September 30, 2002, the Examiner has issued a restriction requirement in which the Examiner alleges that the claims of the application fall within two Groups of inventions as follows:

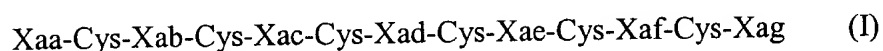
Group I: claims 1-20, 22, and 46, drawn to a peptide and a method of making the peptide; and

Group II: claims 23-44, drawn to a nucleic acid encoding the peptide, chimeric genes and vectors comprising the nucleic acid, host organisms transformed with the nucleic acid, a method of transforming host organisms, and a method of cultivating transformed plants.

The Examiner appears to acknowledge that a peptide and the nucleic acid encoding a peptide represent a single inventive concept under PCT rule 13.1. In addition, the Examiner appears to believe that the technical feature linking Groups I and II is a peptide with at least 6 cysteines, separated from each other by at least one amino acid. The Examiner then alleges that claim 1 is not novel in lieu of Hoffman et al. (1992, Immunol. Today, 13:411-415) because the Examiner contends that Hoffman et al. teach the sequence of several insect defensins that are peptides with at least 6 cysteines, separated from each other by at least one amino acid (Fig. 1) as claimed by the present invention. Because the Examiner concludes that claim 1, among others, is not novel, he contends that the technical feature linking Groups I and II is not special and therefore the groups should not be linked under PCT Rule 13.1.

The Examiner further contends that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another, as are peptides with different amino acid sequences and states that such sequences constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. The Examiner then states, absent evidence to the contrary, each such nucleotide or amino acid sequence is presumed to represent an independent and distinct invention, subject to restriction. Therefore, the Examiner has required that Applicants select a single nucleotide or amino acid sequence upon election of a Group, such requirement is said to not be an election of species.

Applicants respectfully disagree with the Examiner and hereby traverse the restriction requirement. First, Applicants point out that the Examiner has erroneously described the technical feature of Groups I and II as "a peptide with at least 6 cysteines, separated from each other by at least one amino acid." Claim 1 of the present application, as amended, is a genus claim which is directed to a peptide comprising the peptide sequence of Formula I



in which:

Xaa is $-\text{NH}_2$ or a peptide residue consisting essentially of from 1 to 10 amino acids, preferably from 1 to 6 amino acids;

Xab is a peptide residue consisting essentially from 1 to 10 amino acids, preferably 10;

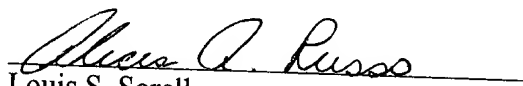
Xac is a peptide residue of 3 amino acids;

Xad is a peptide residue consisting essentially of from 1 to 9 amino acids, preferably 9;

disclosed invention. The invention is not directed to unrelated amino acid sequences or nucleic acid sequences encoding unrelated amino acid sequences, but rather is directed to heliomicine peptide amino acid as defined by Formula (I) and nucleic acids encoding a heliomicine peptide of Formula I. General Formula I, which defines the heliomicine peptides of the present invention, is the evidence to the contrary that shows that the sequences of the invention are not unrelated but rather fall within a genus, which supports Applicants traversal of the restriction requirement.

While Applicants believe that traversal of the restriction requirement is proper according to the remarks indicated above, should the Examiner find the remarks made herein unpersuasive, Applicants elect Group I and the heliomicine peptide as described by SEQ ID NO:2 for prosecution on the merits in the above-identified patent application in order to be fully responsive.

Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

1. (Amended) An isolated peptide comprising [essentially] the peptide sequence of formula (I),

Xaa-Cys-Xab-Cys-Xac-Cys-Xad-Cys-Xae-Cys-Xaf-Cys-Xag (I)

in which:

Xaa is $-NH_2$ or a peptide residue [comprising] consisting essentially of from 1 to 10 amino acids; preferably from 1 to 6 amino acids;

Xab is a peptide residue [comprising] consisting essentially of from 1 to 10 amino acids, preferably 10;

Xac is a peptide residue of 3 amino acids;

Xad is a peptide residue [comprising] consisting essentially of from 1 to 9 amino acids, preferably 9;

Xae is a peptide residue [comprising] consisting essentially of from 1 to 7 amino acids, preferably 7;

Xaf is a peptide residue of 1 amino acid; and

Xag is $-OH$ or a peptide residue [comprising] consisting essentially of from 1 to 5 amino acids, preferably 1 or 2 amino acids.